WHAT IS CLAIMED:

1. A data collection device for use with a medium said medium being usable when exposed to electromagnetic radiation that is characteristic of such use, the data collection device comprising:

a sensor capable of sensing when the medium is exposed to electromagnetic radiation that is characteristic of such a use and generating an exposure signal in response thereto;

a memory; and

a controller connected to said sensor and storing data in the memory when an exposure signal is detected.

2. The data collection device of claim 1, wherein electromagnetic radiation comprises at least one of a radio frequency signal, a visible light, and a non-visible light.

3. The data collection device of claim 1, wherein the sensor collects energy from the electromagnetic radiation so that the sensor, controller and memory can be operated using the collected energy.

4. The data collection device of claim 1, wherein the electromagnetic radiation sensor capable of generating an exposure signal when the medium is exposed to electromagnetic radiation that is within a predetermined range of electromagnetic radiation intensities.

5. The data collection device of claim 1, wherein the sensor is adapted to sense a characteristic exposure comprising a pattern of electromagnetic radiation intensities over a period of time and to generate an exposure signal when the pattern is sensed.

6. The data collection device of claim 1, wherein the sensor senses a characteristic exposure comprising pattern of electromagnetic radiation intensities over a period of time with the pattern of electromagnetic radiation indicating that the medium is being illuminated for at least one of an initial exposure, printing,

projection, photographic, electro-photographic, scanning or image reproduction purposes.

7. The data collection device of claim 1, wherein the electromagnetic radiation sensor senses that the medium has been subjected to electromagnetic radiation intensities that correlate to exposure of the medium at a range of exposure that is above a minimum threshold for projection, photographic reproduction, electro-photographic, scanning or image reproduction purposes.

8. The data collection device of claim 1, wherein the controller stores data in the memory indicating at least one of the length of exposure, the pattern of exposure intensities over time, the number of exposures, the date and time of exposure, the location of exposure, and the equipment used for exposure.

9. The data collection device of claim 1, wherein the electromagnetic radiation includes data that identifies at least one of a viewer proximate to the data collection device, the source of the electromagnetic radiation, a location, a time and information characterizing the use of the medium and wherein when the controller stores the digital data in the memory in response to each exposure signal.

10. The data collection device of claim 1, further comprising a communication circuit adapted to receive a first electromagnetic signal and to generate a second electromagnetic field in the memory.

11. The data collection device of claim 1, wherein the sensor comprises an electromagnetic radiation sensor having a charge cycle that generates an exposure signal each time that the charge cycle is completed and discharged.

12. The data collection device of claim 1, wherein the source of the electromagnetic radiation source is a diagnostic illumination device used to view medical films

13. The data collection device of claim 1, wherein the source of electromagnetic radiation is a film projector.

14. The data collection device of claim 1, wherein the source of electromagnetic radiation is a film printer.

15. The data collection device of claim 1, wherein the source of electromagnetic radiation is a film scanner.

16. The data collection device of claim 1, wherein the source of electromagnetic radiation is a document copier.

17. The data collection device of claim 1, wherein the medium is an x-ray film.

18. The data collection device of claim 1, wherein the medium is a motion picture film.

19. The data collection device of claim 1, further comprising a communication circuit generating a warning signal when the controller detects an exposure signal the warning signal indicating that the document is not to be used.

20. The data collection device of claim 1, wherein the data collection device comprises a substrate supporting the sensor, memory and controller.

21. The data collection device of claim 20, wherein the substrate has an adhesive layer for joining the data collection device to a medium.

22. The data collection device of claim 1, wherein the medium is the substrate.

23. The data collection device of claim 1, wherein the medium is formed about the data collection device.

24. The data collection device of claim 1, wherein the data collection device is joined to the medium.

25. The data collection device of claim 1, wherein, the data collection device is sized between 10x10x10 microns and 100x 400 x 500 microns.

26. The data collection device of claim 1, wherein the medium is an image recording medium that records images in response to a characteristic exposure of the medium to a light and the sensor is adapted to sense the characteristic exposure.

27. The data collection device of claim 1, wherein the medium is an image bearing medium that having images that are viewable only in response to a characteristic exposure of the medium to a light and wherein the sensor is adapted to sense the characteristic exposure.

28. The data collection device of claim 1, wherein the medium is an image recording medium that records images in response to a characteristic exposure of the medium to a light.

29. A data collection device, comprising:

a web of medium, said medium being useable when the medium is subject to an exposure to light that is within a predefined range of exposure;

a light sensor sensing exposure of the medium to light;

a memory; and

a controller connected to said light sensor and storing information in the memory indicative of an exposure when the medium is subject to a light exposure that is within the range.

30. The data collection device of claim 29, wherein the exposure range is sufficient for accurate use of the image comprises a level sufficient for human observation of the image.

31. The data collection device of claim 30, wherein the exposure range is sufficient for exposing images onto unexposed film.

32. The data collection device of claim 29, wherein the exposure range is sufficient for accurate use of the image comprises a level sufficient for automatic reproduction of the image.

33. The data collection device of claim 29, wherein the exposure range is sufficient for scanning processed film.

34. The data collection device of claim 29, further comprising a communication circuit permitting communication between the memory and an external device.

35. The data collection device of claim 33, wherein the communication circuit comprises a radio-frequency transponder circuit.

36. The data collection device of claim 33, wherein the communication circuit generates a warning signal each time that the image is exposed to light at the exposure level that is sufficient for accurate use of the image.

37. The data collection device of claim 33 wherein the communication circuit is adapted to receive a signal having data stored.

38. The data collection device of claim 29, wherein light sensor detects exposure of the image only to selected wavelengths of light.

39. The data collection device of claim 29 wherein the memory contains information that can be used to authenticate the medium.